PRESENTATION ON MERCURY SOURCES AND PRPs IN THE PRSA/PRRI AREAS

Facts Regarding Mercury and the PRSA/PRRI

- PRSA/PRRI sediments contain elevated concentrations of Mercury.

- There exist numerous historic and present day sources of Mercury to the environment.

- Many of these sites have historical and/or present day discharge pathways to the PRSA/PRRI.

- Numerous PRPs have been identified, and include historic users/handlers of Mercury and Mercury-containing products.

Sources of Mercury in the Environment

Processes or operations leading to the release of Mercury into the environment include:

- Manufacturing/use of fungicides/biocides containing Mercury: paints, wood preservatives, pharmaceuticals, cosmetics.

- Manufacturing/use/disposal of pigments containing Mercury: plastics, enamels, printing inks, rubber, paper and textile products.

- Manufacturing/disposal of products containing Mercury: thermometers, switches, thermostats, dental amalgams, batteries, fluorescent lamps.

Sources of Mercury in the Environment
continued

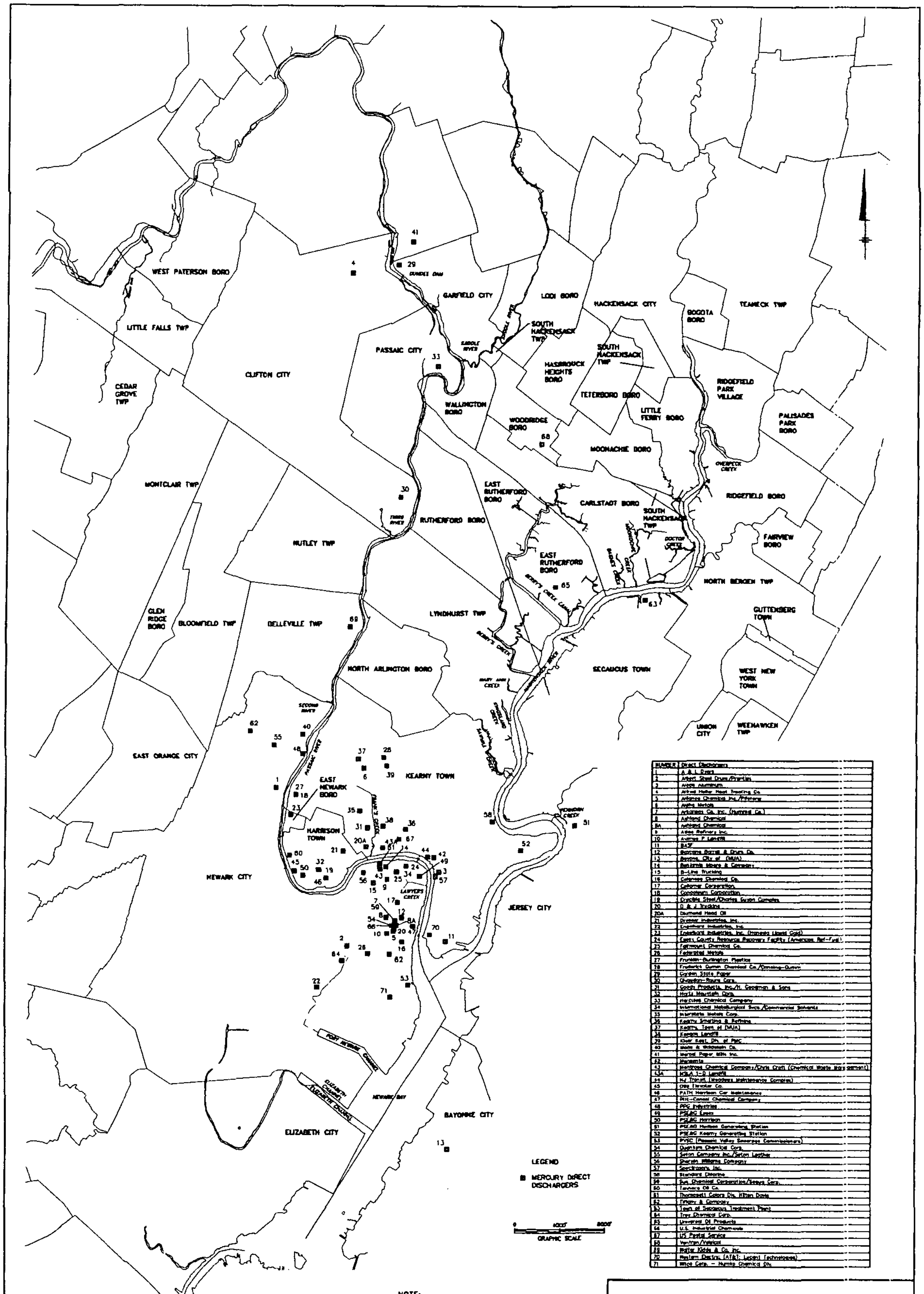
- Incineration: sludge, municipal solid waste, medical wastes.
- Non-ferrous and aluminum processing operations
- Coal combustion processes
- Chlorine and caustic soda manufacturing
- Discontinued use of Mercury in these materials:
  - embalming fluid
  - soap
  - wood preservatives
  - treatment of Dutch Elm disease
  - photographic development
- Discontinued sources of Mercury from manufacturing of: mirrors and glass, felt, textiles, paper coatings.

Sources of Mercury in the PRSA/PRRI Areas

- Evidence was gathered on more than 300 entities identified as having used Mercury, having utilized processes that are potential Mercury sources, or having Mercury-contaminated soil and/or groundwater.
- Sources of information consisted of publicly available records, including:
  - USEPA enforcement and compliance records
  - NJDEP site remediation records
  - local city records
  - PRP responses to CERCLA 104(e) requests.
- Candidate PRPs have been identified
  - 71 Direct dischargers
  - 241 Combined Sewer Overflow (CSO) dischargers.

Background on the Presence of Mercury Sources in the Environment

- "Characterization of Products Containing Mercury in Municipal Solid Waste in the United States 1970-2000," USEPA, March 1992.
- "Volume I - Executive Summary and Recommendations, " New Jersey Mercury Task Force prepared for NJDEP, December 2001.
- "Volume III - Sources of Mercury in New Jersey," New Jersey Mercury Task Force prepared for NJDEP, January 2002.
- "Mercury Exposure from Interior Latex Paint," MM Agocs, RA Etzel, RG Parrish, DC Paschal, PR Campagna, DS Cohen, EM Kilbourne and JL Hesse, New England Journal of Medicine, October 18, 1990.



NUMBER	Direct Dischargers
1	A & L Drum
2	Albert Steel Drum/Franklin
3	Alcoa Aluminum
4	Alfred Heller Heat Treating Co.
5	Alliance Chemical Inc./Pittsburg
6	Alpha Metals
7	Arkansas Co. Inc. (Hummel Co.)
8	Ashland Chemical
8A	Ashland Chemical
9	Atlas Refinery Inc.
10	Avenue P Landfill
11	BASF
12	Bayonne Barrel & Drum Co.
13	Bayonne, City of (MUA)
14	Benjamin Moore & Company
15	B-Line Trucking
16	Celanese Chemical Co.
17	Celomer Corporation
18	Congoleum Corporation
19	Crucible Steel/Charles Guyon Complex
20	D & J Trucking
20A	Diamond Head Oil
21	Dresser Industries, Inc.
22	Engelhard Industries, Inc.
23	Engelhard Industries, Inc. (Hanovia Liquid Gold)
24	Essex County Resource Recovery Facility (American Ref-Fuel)
25	Fairmount Chemical Co.
26	Federated Metals
27	Franklin-Burlington Plastics
28	Frederick Gumm Chemical Co./[illegible]
29	Garden State Paper
30	Givaudan-Roure Corp.
31	Goody Products, Inc./H. Goodman & Sons
32	Hartz Mountain Corp.
33	Hercules Chemical Company
34	International Metallurgical Svcs./Commercial Solvents
35	Interstate Metals Corp.
36	Kearny Smelting & Refining
37	Kearny, Town of (MUA)
38	Keegan Landfill
39	[illegible] Div. of PMC
40	Maas & Waldstein Co.
41	Marcal Paper Mills Inc.
42	Monsanto
43	Montrose Chemical Company/Chris Craft (Chemical Waste Management)
43A	MSLA 1-D Landfill
44	NJ Transit (Meadows Maintenance Complex)
45	Otis Elevator Co.
46	PATH Harrison Car Maintenance
47	Pitt-Consol Chemical Company
48	PPG Industries
49	PSE&G Essex
50	PSE&G Harrison
51	PSE&G Hudson Generating Station
52	PSE&G Kearny Generating Station
53	PVSC (Passaic Valley Sewerage Commissioners)
54	Quantum Chemical Corp.
55	Seton Company Inc./Seton Leather
56	Sherwin Williams Company
57	Spectraserv, Inc.
58	Standard Chlorine
59	Sun Chemical Corporation/Sequa Corp.
60	Texaco Oil Co.
61	Thomasset Colors Div. Hilton Davis
62	Tiffany & Company
63	Town of Secaucus Treatment Plant
64	Troy Chemical Corp.
65	Universal Oil Products
66	U.S. Industrial Chemicals
67	US Postal Service
68	Ventron/Velsicol
69	Walter Kidde & Co. Inc.
70	Western Electric (AT&T; Lucent Technologies)
71	Witco Corp. - Humko Chemical Div.

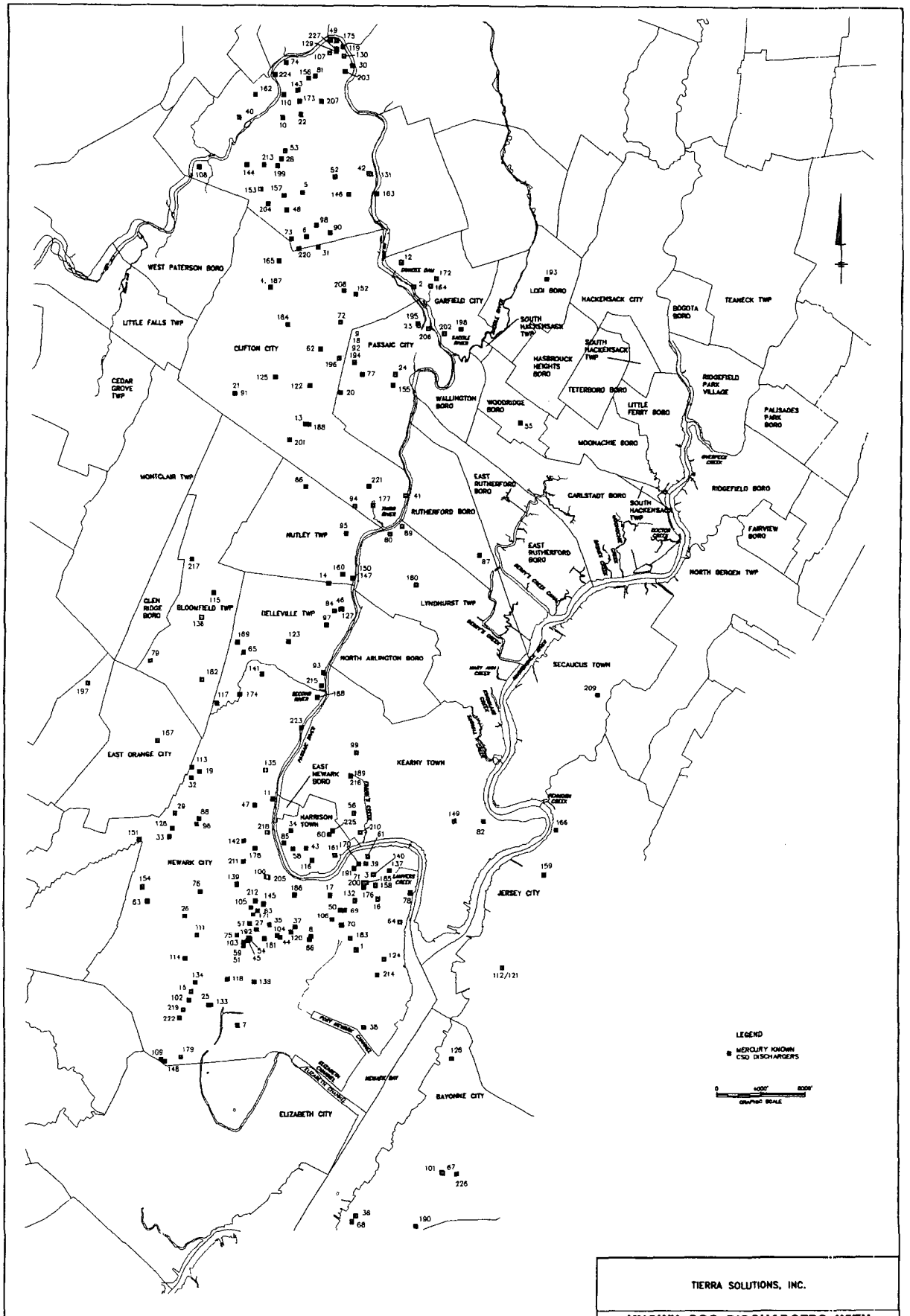
NOTE:
DIRECT DISCHARGER LOCATIONS ARE APPROXIMATE.

TIERRA SOLUTIONS, INC.

KNOWN DIRECT DISCHARGERS WITH MERCURY ASSOCIATIONS IN THE PRRI/PRSA

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
1



TIERRA SOLUTIONS, INC.

KNOWN CSO DISCHARGERS WITH MERCURY ASSOCIATIONS IN THE PRRI/PRSA

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

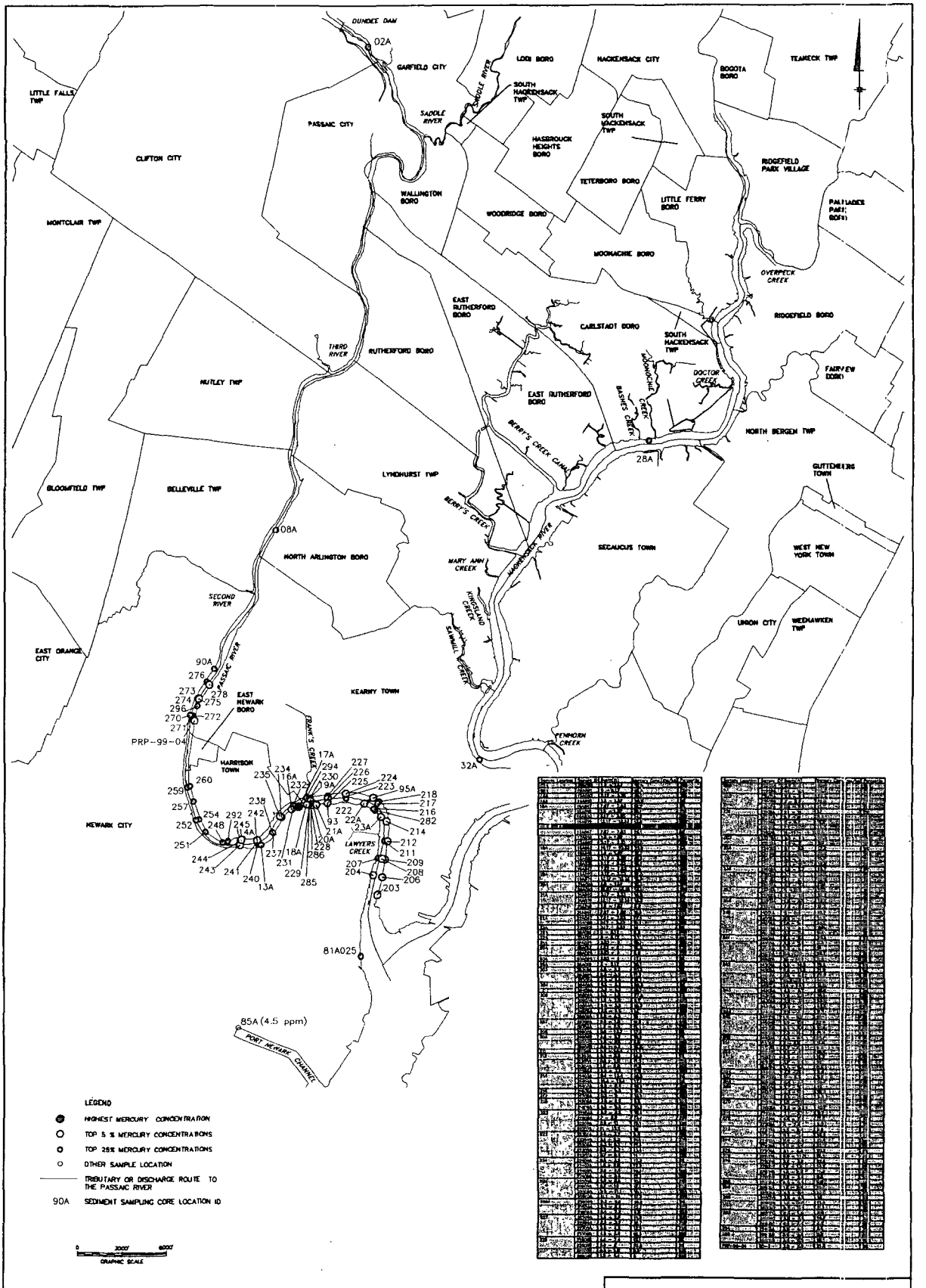
FIGURE 2.

Mercury Investigation Overview: PRP Evidence

- Evidence for each site was reviewed to identify on-site Mercury contamination.
- Evidence for each PRP was evaluated to identify historic or present day discharge pathways to the PRSA/PRRI.
- Evidence for each site was then compared to the sediment chemistry near the sites discharge location(s).

Mercury Investigation Overview: Sediment Chemistry

- PRSA/PRRI sediment chemistry (Data Base Version EPA 4) was reviewed to identify areas of peak concentrations of Mercury.
- Data falling into the top 25% of Mercury concentrations was utilized, and concentrations identified as top 5% and peak were similarly identified by location.
- Each sampling location is a core - typically representing 3 to 6 individual sampling horizons.
- The sample locations were evaluated as to their proximity to Mercury sources, and the sample horizons were evaluated to help approximate the period of Mercury discharge.



TIERRA SOLUTIONS, INC.

SOURCES OF MERCURY TO THE PRRI/PRSA AREAS

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3

Mercury Investigation Overview

- The evidence from PRP sites and sediment chemistry were then evaluated to identify sources of the observed Mercury contamination in the PRSA/PRRI.

- Mercury contamination of the PRSA is widespread and PRPs can be identified for this contamination based on the evidence assembled to date.

- In contrast to the PRSA, only limited data have been collected to date for the PRRI Area.

Mercury PRP Case Studies

- Five of the more than 300 PRP cases have been developed in detail. :
  - Bayonne Barrel & Drum
  - Interstate Metals Company
  - Troy Chemical Corporation
  - Sherwin-Williams Company

The following four case studies will…

- Identify some of the processes and activities that have caused Mercury contamination.
- Identify some typical historic and present day discharge routes from these facilities.
- Demonstrate the amounts of Mercury contamination found in PRSA/PRRI sediments.
- Demonstrate the types of evidence collected to date regarding PRPs and the need for further investigation.

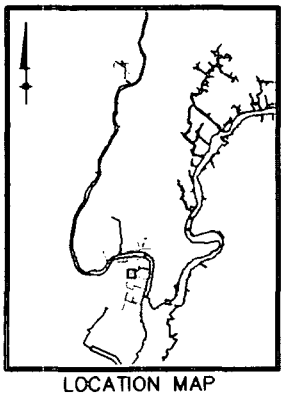
Bayonne Barrel and Drum

- The Bayonne Barrel and Drum Superfund site is located at 150-154 Raymond Blvd., Newark NJ.
- Site was operational from approximately 1931 to 1983.
- Reconditioned drums using caustic solutions, steel shot abrasive, fire blasting, on-site incineration and paint.
- Undergoing multi-party Superfund cleanup to address contaminated soils.

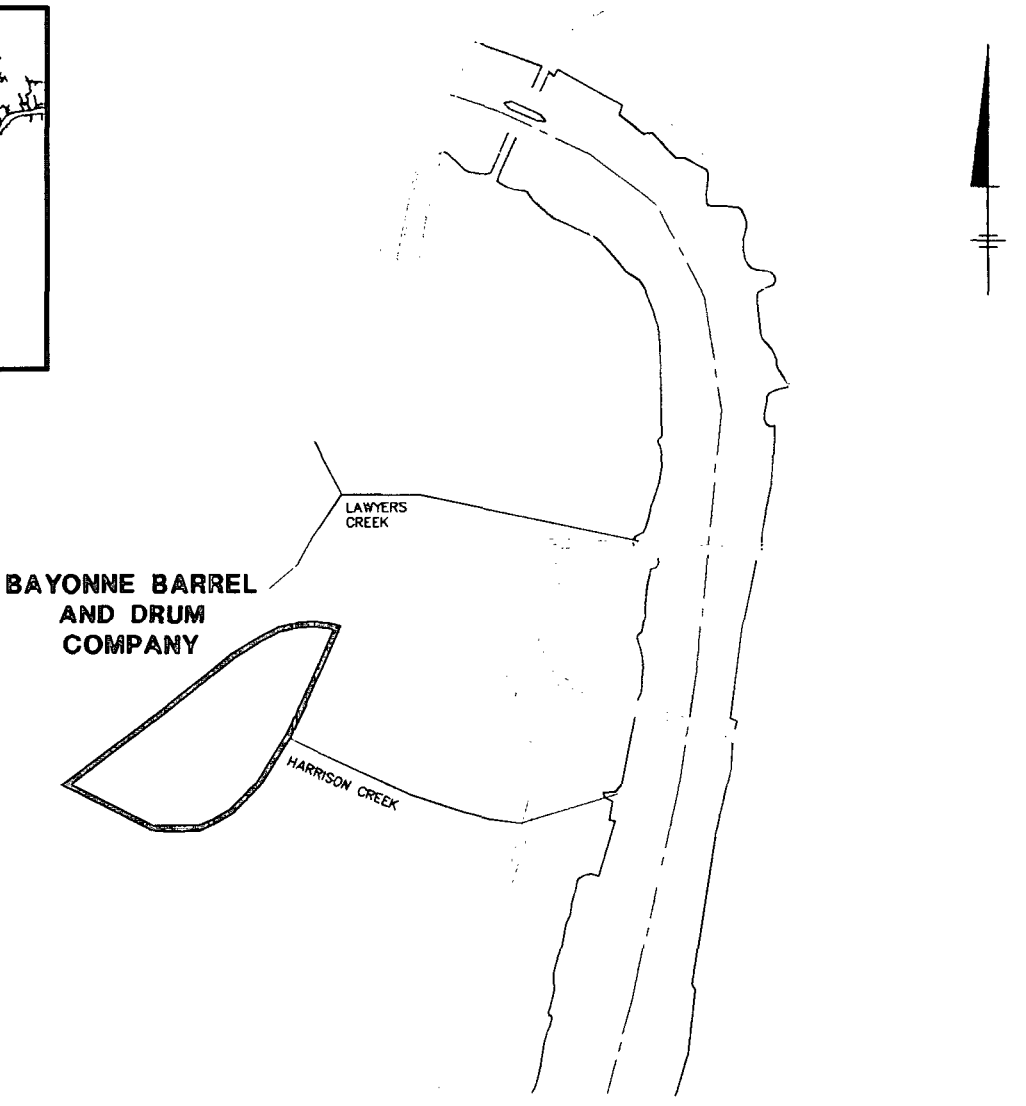
Bayonne Barrel and Drum – PRPs

The USEPA has issued PRP Notice Lettters to the following entities:

- Alumax/Halmet Aluminum/Alcoa
- Borden Chemical
- Colonial Printing/Chevron
- Converters Inc. Company (Zeneca, Inc.)
- Ford Motor Co.
- E. I. du Pont de Nemours and Company
- General Motors Corporation
- Hoffman-LaRoche Corporation
- BASF Corporation/Inmont Corporation
- National Starch & Chemical Company
- PPG
- Products Research & Chemical Corp. (Courtaulds Aerospace, Inc.)
- Reliance Universal (Akzo Nobel)
- S & W Waste
- Sherwin Williams Company
- Solvent Recovery
- Sun Chemical/Sequa
- Tuscan Dairy
- Whittaker Corporation



LOCATION MAP
NOT TO SCALE



LEGEND:

- SHORELINE
- CREEK
- APPROXIMATE FACILITY BOUNDARY

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

X: 09994X11.DWG
L: ON=*, OFF=*REF*
P: STD-PAGESET/AP
9/9/03 SYR-54-GMS SDL LAF
09994023/LOCATION/09994B11.DWG

SITE LOCATION MAP

BAYONNE BARREL AND DRUM COMPANY FACILITY

The following evidence was used to develop these findings concerning Bayonne Barrel and Drum

- BA1 - May 1980, Garden State Laboratories, Inc. analytical results for composite effluent.
- BA2 - May 16,1984, USEPA memo, Bayonne Barrel and Drum RCRA Sampling Results, attachment, Table III.
- BA3 - December 1986, Louis Berger & Associates, "Results of Preliminary Investigations and Sampling in Proposed New Jersey Turnpike Right-of-Way at the Bayonne Barrel and Drum Property, "Table 5.
- BA4 -December 2, 1988, Bayonne Barrel and Drum Co., NJDEP Site Inspection Review.
- BA5 - March 1997, Blasland, Bouck & Lee, Bayonne Barrel and Drum Site -Soil Investigation Report," Table 1D.

Bayonne Barrel and Drum - Mercury Association

- on-site incineration of drums and residues.
- Generated 40,000 lbs/mo. incinerator ash, containing 21 ppm Mercury.
- on-site Mercury contamination
  - soil - 43.9 ppm
  - groundwater - 53 ppb
  - composite effluent - 26.3 ppb
  - soil by ash pile - 27 ppm

Bayonne Barrel and Drum - Discharge Routes

- On-site ditches, wastewater lagoons and settling tanks were known to historically discharge to Harrison Creek, a tributary of the Passaic River.

- In 1973, process wastewater discharged to the PVSC sewer system.

- Surface runoff discharged to Harrison Creek.

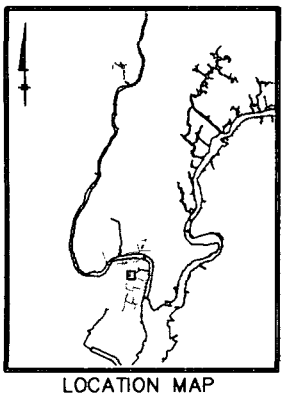
Bayonne Barrel and Drum - Mercury Contamination

On-site contamination:

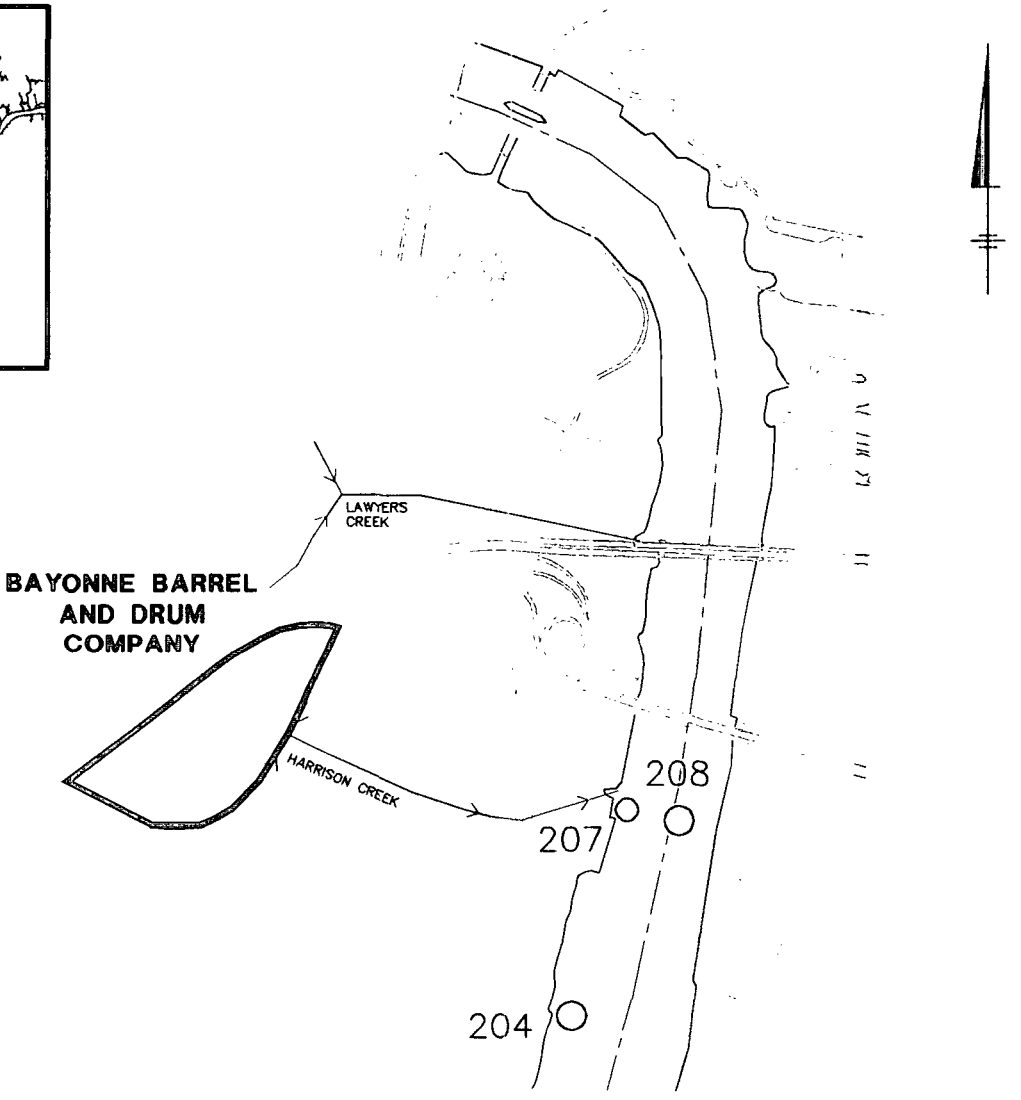
On-site soil	43.9 ppm
Ash pile soil	27 ppm
On-site GW	53 ppb

PRSA/PRRI Sediments:

Core 204	28.3 ppm
Core 207	11.6 ppm
Core 208	17.5 ppm



LOCATION MAP
NOT TO SCALE



LEGEND:

- SHORELINE
- CREEK
- DISCHARGE ROUTE
- FLOW DIRECTION
- TOP 5% MERCURY CONCENTRATIONS
- TOP 25% MERCURY CONCENTRATIONS

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

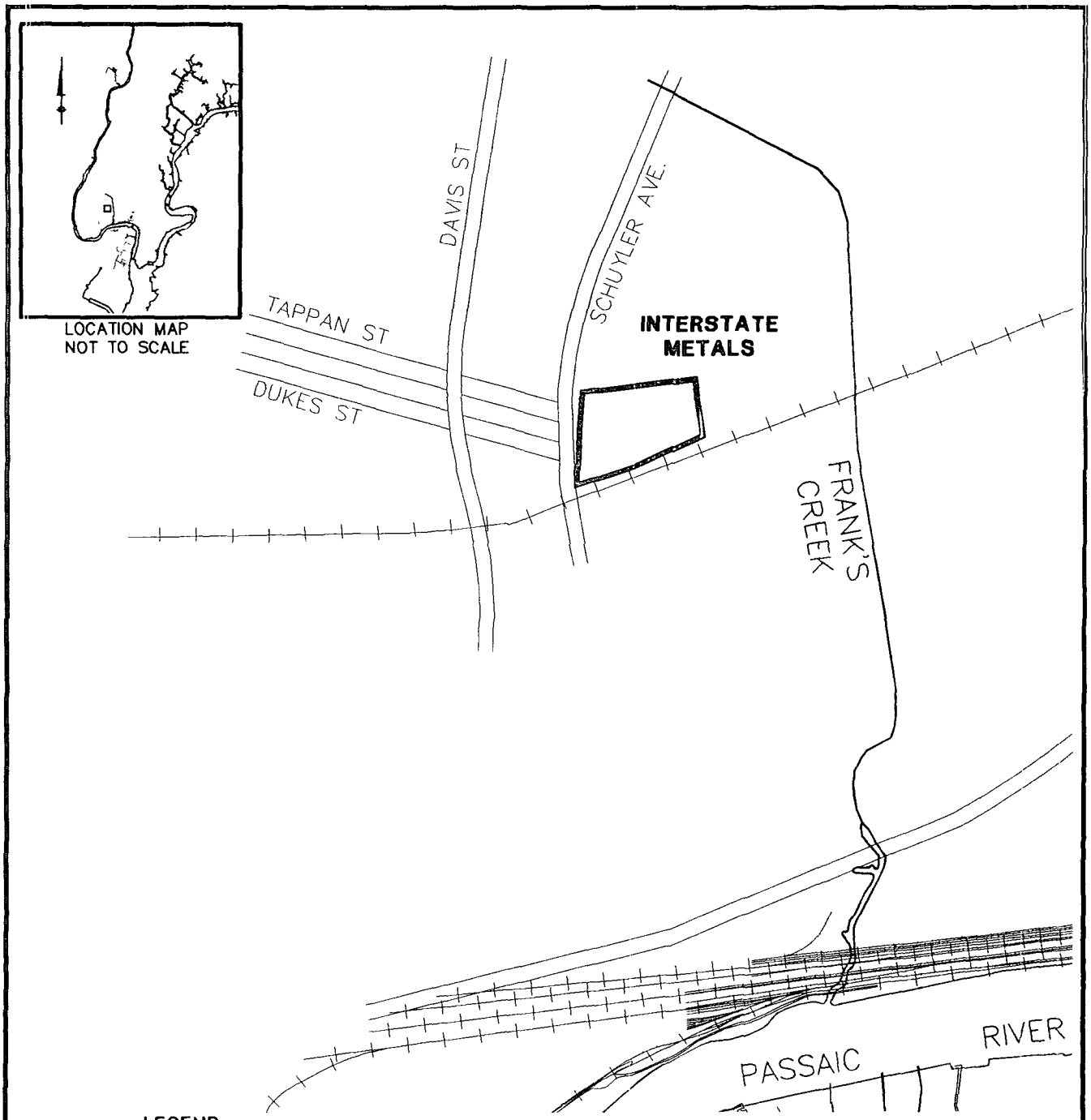
SITE LOCATION MAP

BAYONNE BARREL AND DRUM COMPANY FACILITY

X: 09994X11.DWG
L: ON=*, OFF=*REF*
P: STD-PAGESET/AP
9/9/03 SYR-54-GMS SDL LAF
(09994023/PRSA/MERC/09994B11.DWG

Interstate Metals Corporation

- The Interstate Metals Corporation-site is located at 241 Dukes Street, Kearny, NJ.
- Operated a scrap metal reclamation business and Mercury recovery operation since 1943.
- The site was closed and remediation implemented circa 1991.



LEGEND:

- SHORELINE
- CREEK
- APPROXIMATE FACILITY BOUNDARY

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

X: 09994X10.DWG
L: ON=*, OFF=*REF*
F: PAGESET/PLT-AP
5/9/03 SYR-54-LAF SDL LAF
C:\9994023\LOCATION\09994B12.DWG

SITE LOCATION MAP

INTERSTATE METALS

The following evidence was used to develop these findings concerning Interstate Metals Corporation

- I1 – November 12, 1985, ETC Sampling data indicates Hg at 40000ppm
- I2 - 1987 EPA Preliminary Assessment indicates Hg at 3470 ppm
- I3 - September 2, 1987, Interstate Metals Separating Corp. Environmental Report, Table II(1) indicates Hg at 2160 ppm
- I4 - September 2, 1987, Interstate Metals Separating Corp. Environmental Report, Table II(1) indicates Hg at 0.004 ppm
- I5 - July 1988, Site Inspection Report indicates Hg presence.
- I6 - NJDEP ACO indicates Hg at 780 ppm
- I7 - October 1991, Lagoon Closure Report indicates Hg presence.

Interstate Metals Corporation - Mercury Association

- Mercury recovery operations from 1950s through the 1960s.
- on-site Mercury contamination
  - soil - 3,470 ppm
  - soil - 40,000 ppm unfenced area
  - subsurface soil - 2160 ppm at 2 ft
  - surface water - 4 ppb
  - sediments - 780 ppm pond
  - sediments - 361 ppm lagoon

Interstate Metals Corporation - Discharge Routes

- on-site pond for stormwater runoff and on-site lagoon for process wastewater.
- Effluent from lagoon discharged to pond.
- Pond discharged to Dead Horse Creek, a tributary of Frank's Creek.
- Lagoon bottoms periodically backhoed and spread over northern portion of site.
- Pond periodically drained and discharged to Dead Horse Creek.

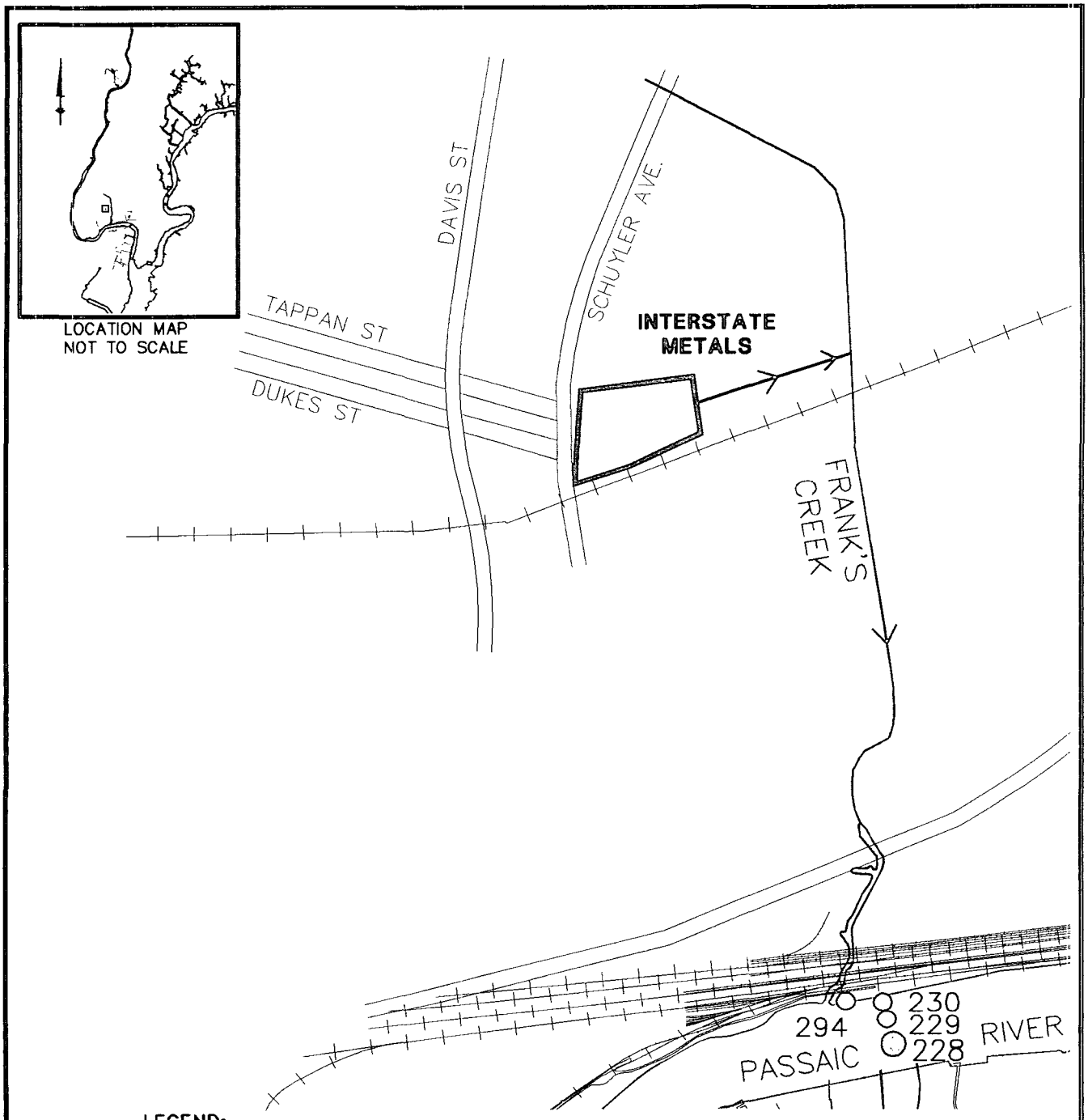
Interstate Metals Corporation -Mercury Contamination

On-site contamination:

On-site soil	22 ppm
On-site subsurface soil	2160 ppm
Soil unfenced area	40,000 ppm
Pond sediments	780 ppm
Lagoon sediments	361 ppm

PRSA/PRRI Sediments:

Core 228	20.5ppm
Core 229	15.7 ppm
Core 230	11.3 ppm
Core 294	9.4 ppm



LEGEND:

- SHORELINE
- CREEK
- DISCHARGE ROUTE
- FLOW DIRECTION
- TOP 5% MERCURY CONCENTRATIONS
- TOP 25% MERCURY CONCENTRATIONS

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

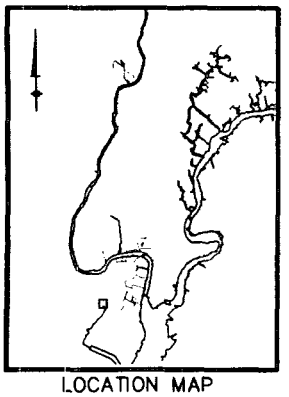
X: 09994X10.DWG
L: ON=*, OFF=*REF*
P: PAGESET/PLT-AP
9/9/03 SYR-54-LAF SDL LAF
09994023/PRSA/MERC/09994812.DWG

SITE LOCATION MAP

INTERSTATE METALS

Troy Chemical Corporation

- The Troy Chemical Corporation-site is located at One Avenue L, Newark, NJ.
- Operated at this location since 1956.
- Manufactured specialty chemicals including biocides, fungicides, preservatives, dryers, rheology agents, surfactants and dispersants.
- Previous owners
  - 1868-1927 - Heller and Merz Company/American Altramarine and Gloee Aniline works manufactured ultramarine and aniline dyes
  - 1931-1951 - American Cyanamid Company/Calco Chemical manufactured coal tar dyes and intermediates.



LOCATION MAP
NOT TO SCALE

AVENUE L

WILSON AVE.

TROY CHEMICAL

PIERSON'S CREEK

NEW JERSEY TURNPIKE

PORT NEWARK CHANNEL

LEGEND:

- SHORELINE
- CREEK
- APPROXIMATE FACILITY BOUNDARY

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

X: 09994X11.DWG
L: ON=*, OFF=*REF*
P: PAGESET/PLT-AP
9/9/03 SYR-54-LAF SDL LAF
0999+023/LOCATION/09994B14.DWG

SITE LOCATION MAP

TROY CHEMICAL

The following evidence was used to develop these findings concerning Troy Chemical Corporation

- T1- August 18, 1977, NJDEP, Stream and Wastewater Analysis-fungicide plant discharge
- T2 – August 18, 1977, NJDEP, Stream and Wastewater Analysis -cooling water discharge
- T3 - September 30, 1977, Schwartz, Steinberg, Tobia & Stanziale response letter to NJDEP re: Troy
- T4 – undated, sketch of Troy site with sampling results
- T5 – date not legible, Sampling data indicating 83,200 ppm
- T6 - September 7, 1979, USEPA, Inspection and Sampling Survey of Troy Chemical Co. Plant
- T7 - December 12, 1979, NJDEP memo Re: Troy Chemical Pretreatment Issues
- T8 –November 17, 1981, NJDEP water analysis for monitoring well #2A indicating 74 ppb of Hg
- T9 - April 29, 1985, JRB Associates, Draft Development of Permit Limitations for: Troy Chemical Corporation, Newark, New Jersey.
- T10 – undated, general site history
- T11 – November 17, 1981, Table 8 Sampling Data indicating 607000 ppm Hg
- T12 – February 1996, Table 4-1 Summary of Area of Concern Selection - RI/RAA Workplan Addendum
- T13 –November 17, 1981, Table A-4 Sediment Data - RI/RAA Workplan Addendum
- T14 – June 1998, Table 4, RI Addendum indicating Hg in surface water

Troy Chemical Corporation - Mercury Association

- Manufactured 500,000 lbs/yr of Mercury compounds, including mercuric oxides and organic mercury chemicals.
- Facility operations included Mercury reclamation and Mercury metal washing stations.
- on-site Mercury contamination
  - soil – 3120 ppm AOC 5
  - subsurface soil - 2590 ppm at 2.5 ft
  - groundwater - 74 ppb
  - sediments - 83, 200 ppm east ditch
  - sediments – 607,000 ppm Pierson's Creek
  - cooling water discharge - 42.4 ppb
  - plant discharge - 39 ppb

Troy Chemical Corporation - Discharge Routes

- Process waste, storm water runoff, non-contact cooling water, boiler blowdown and steam condensate discharged directly to Pearson's Creek.
- Between 1965-1976, some treatment of Mercury wastewater prior to discharge to PVSC.
- In 1977, NJDEP permit granted for non contact cooling water and condensate only to Pierson's Creek.

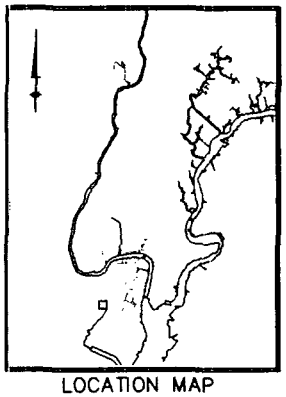
Troy Chemical Corporation - Mercury Contamination

On-site contamination:

On-site soil	3,120 ppm
On-site subsurface soil	2,590 ppm
On-site groundwater	74 ppb
East ditch	83,200 ppm
Pierson's Creek	607,000 ppm

PRSA/PRRI Sediments:

Core 85A	4.5 ppm



LOCATION MAP
NOT TO SCALE

AVENUE L

WILSON AVE.

TROY CHEMICAL

PIERSON'S CREEK

NEW JERSEY TURNPIKE

85A

PORT NEWARK CHANNEL

LEGEND:

- SHORELINE
- CREEK
- DISCHARGE ROUTE
- FLOW DIRECTION
- 85A — 1993 SAMPLE

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

X: 09994X11.DWG
L: ON=*, OFF=*REF*
P: PAGESET/PLT-AP
9/9/03 SYR-54-LAF SDL LAF
09994023/PRSA/MERC/09994B14.DWG

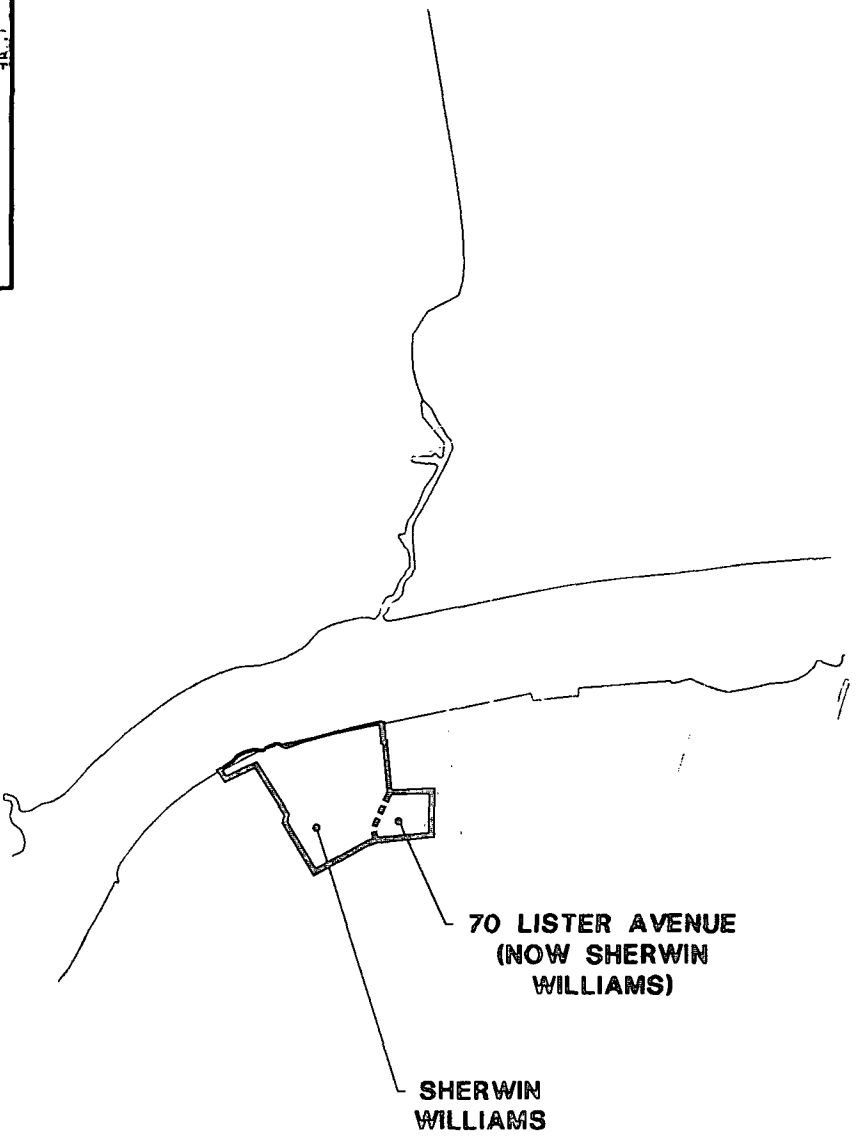
SITE LOCATION MAP

TROY CHEMICAL

Sherwin-Williams Company

- The Sherwin-Williams Company site is located at 66 Lister Avenue, Newark, NJ.
- Operated at this location since 1910 to demolition in 1999.
- Manufactured lead pigment paints; oil and solvent based paints; wood preservatives; and varnishes.

LOCATION MAP
NOT TO SCALE



LEGEND:

- SHORELINE
- CREEK
- APPROXIMATE FACILITY BOUNDARY

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

X: 09994X11.DWG
L: ON=*, OFF=*REF*
P: PAGESET/PLT-AP
9/9/03 SYR-54-LAF SDL LAF
01994023/LOCATION/09994B15.DWG

SITE LOCATION MAP

SHERWIN WILLIAMS

The following evidence was used to develop these findings concerning Sherwin-Williams Company

- S1- October 19, 1990, Associated Press article *Paint Makers Decry New Reports, Say Nearly All are Mercury Free.*
- S2 - March 2, 1995, Sherwin-Williams 104 (e) response
- S3 - October 2001, Preliminary Assessment/Site. Investigation/Remedial Investigation Report, Table 4-72.
- S4 - August 2002, ISRA Investigation Report Addendum, Table 4-3.

Sherwin-Williams Company - Mercury Association

- Admission in 104(e) response to USEPA - Mercury may have been received and utilized in the manufacturing process prior to 1984.

- Mercury used in paints as a fungicide - Sherwin-Williams removed Mercury in 1973.

- on-site Mercury contamination
  - subsurface soil - 6,030 ppm at 1.5-2.0 ft
  - groundwater - 0.86 ppb

Sherwin-Williams Company - Discharge Routes

- Nine outfalls identified along the banks of Passaic River.
- In 1920s, 24-inch combined sewer and 15-inch clay sanitary sewer installed with lateral regulator.
- History of flows to Passaic River through Brown Street Combined Sewer until storm sewer sealed in 1971.
- Post 1971, storm sewer discharges both on-site and via Lister Ave. to Lockwood St.

Sherwin-Williams Company - Mercury Contamination

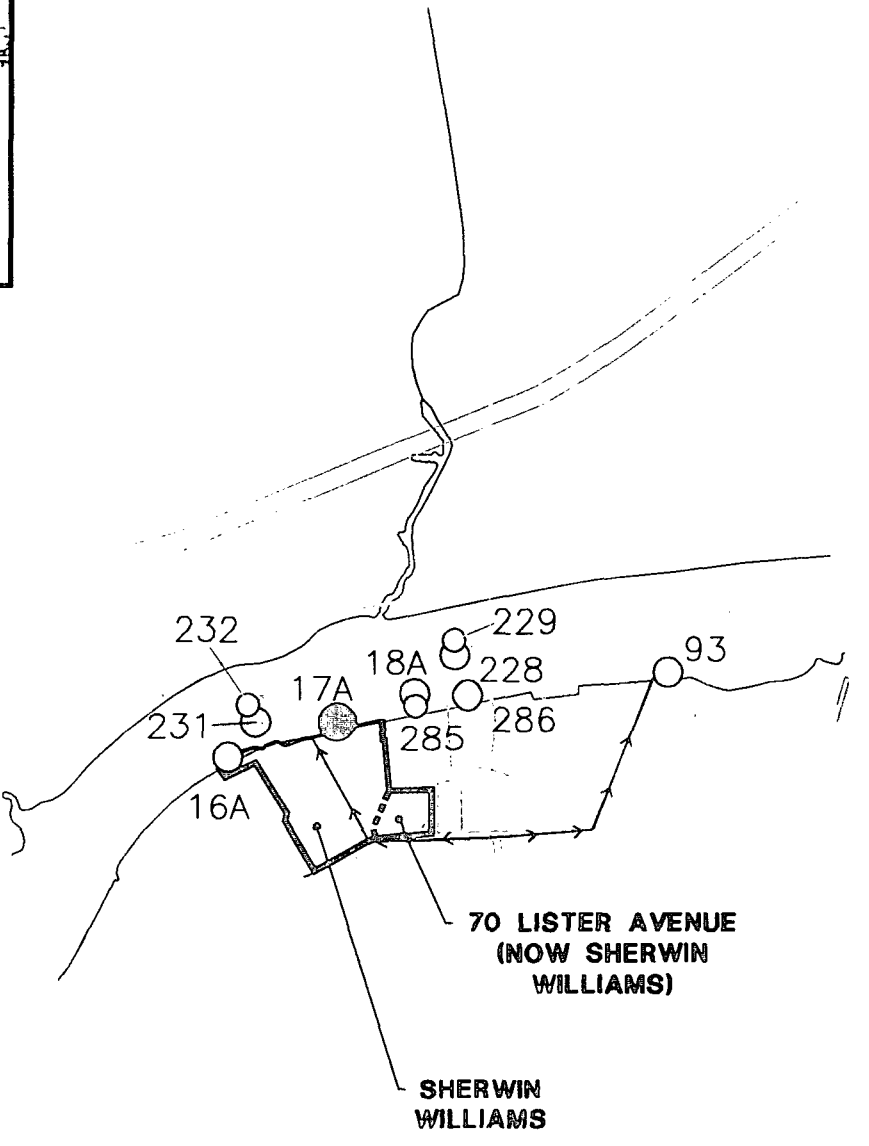
On-site contamination:

On-site subsurface soil	6,030 ppm
On-site groundwater	0.86 ppb

PRSA/PRRI Sediments:

Core 16A	18.7 ppm
Core 17A	29.6 ppm
Core 18A	20.9 ppm
Core 93	17.1 ppm
Core 228	20.5 ppm
Core 229	15.7 ppm
Core 231	17.0 ppm
Core 232	10.2 ppm
Core 285	15.7 ppm
Core 286	18.0 ppm

LOCATION MAP
NOT TO SCALE



LEGEND:

- SHORELINE
- CREEK
- DISCHARGE ROUTE
- FLOW DIRECTION
- HIGHEST MERCURY CONCENTRATION
- TOP 5% MERCURY CONCENTRATIONS
- TOP 25% MERCURY CONCENTRATIONS

NOTE:

SITE BOUNDARIES AND ROADS ARE APPROXIMATE (DIGITIZED FROM MAPQUEST.COM AERIAL PHOTOGRAPHS 2/20/2003).

0 1000' 2000'

GRAPHIC SCALE

X: 09994X11.DWG
L: ON=*, OFF=*REF*
P: PAGESET/PLT-AP
9/9/03 SYR-54-LAF SDL LAF
O:\99402J/PRSA/MERC/09994B15.DWG

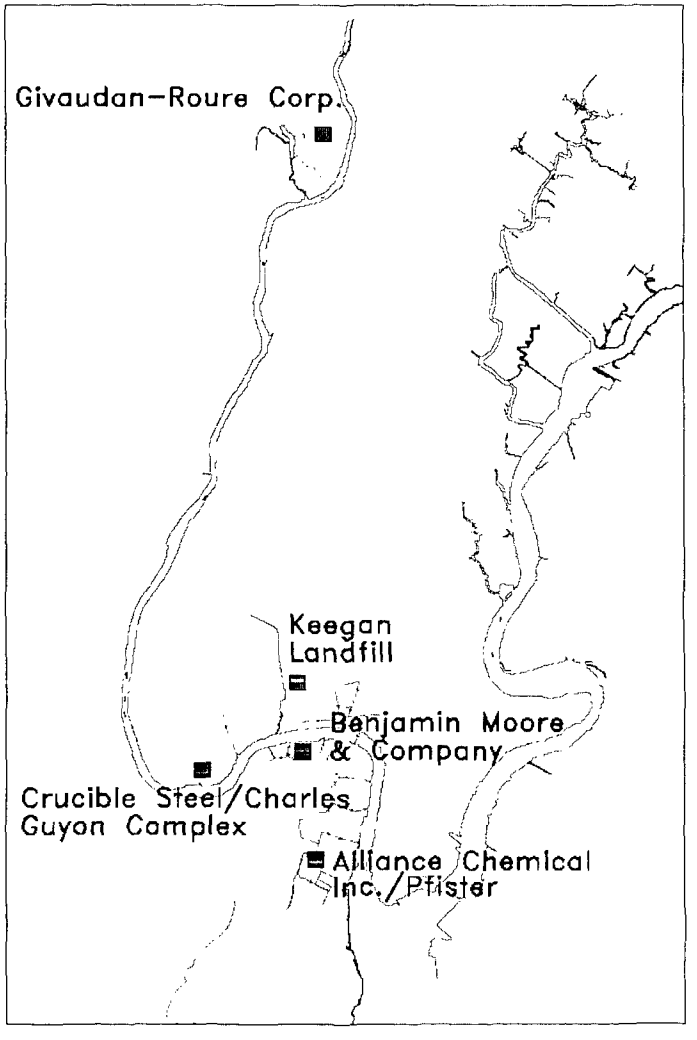
SITE LOCATION MAP

SHERWIN WILLIAMS

Additional Efforts and Investigations

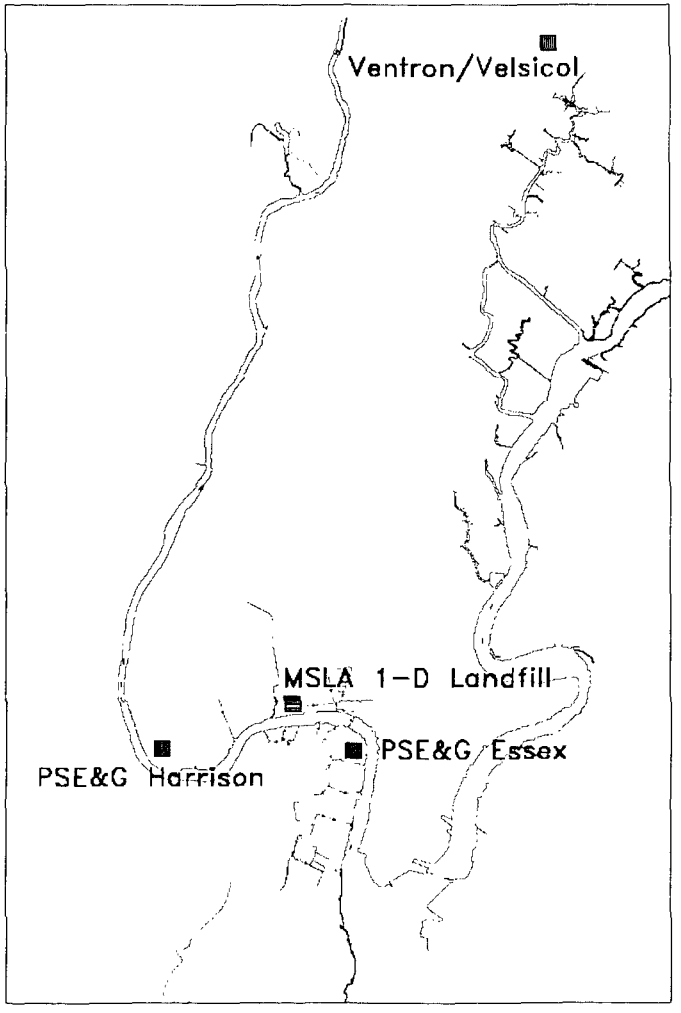
Other Mercury PRPs to consider

- **With processes known to be Mercury sources**
  - Alliance Chemical
    - soil – 96.3 ppm
  - Benjamin Moore & Company
    - on-site wastewater tank contents – 5 ppb
  - Crucible Steel
    - soil – 10.2 ppm
  - Givaudan Corporation
    - soil – 22 ppm
  - Keegan Landfill
    - sediments – 10.8 ppm



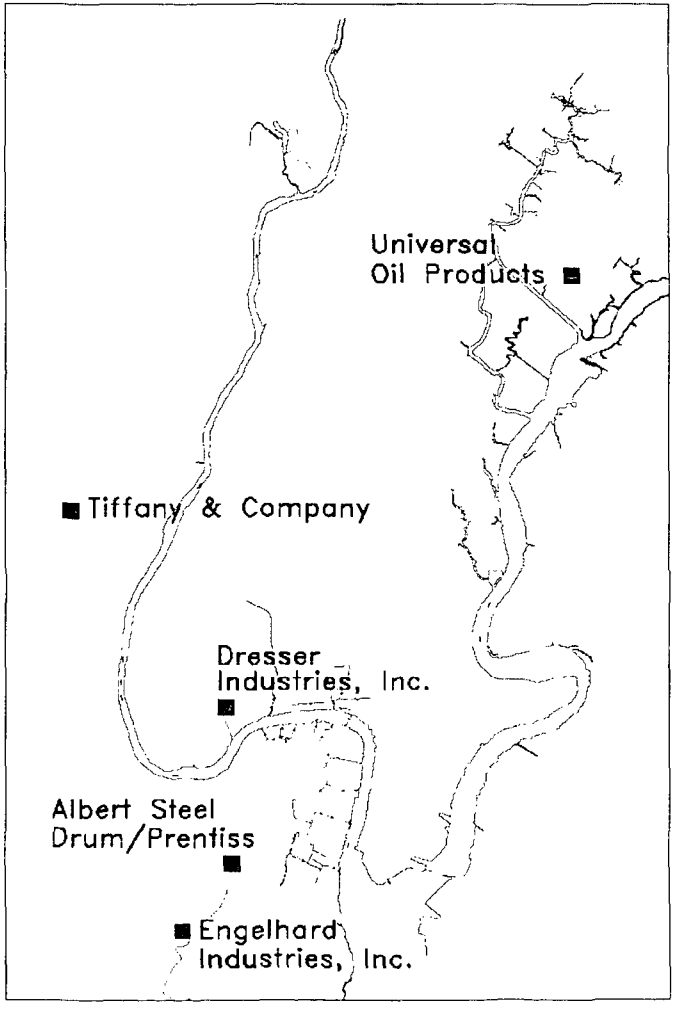
Other Mercury PRPs to consider

- **With processes known to be Mercury sources (continued)**
  - MSLA 1D Landfill
    - soil – 19.4 ppm
  - PSE&G Essex
    - Soil – 0.55 ppb
  - PSE&G Harrison
    - Subsurface soil – 3.3 ppm
  - Ventron-Velsicol
    - Soil – 13,800 ppm



Other Mercury PRPs to consider

- **With on-site Mercury contamination**
  - Albert Steel Drum
    - soil – 868 ppm
  - Dresser Industries
    - sediments – 1490 ppm
  - Engelhard
    - sediments – 71 ppm
  - Tiffany
    - groundwater – 59 ppm
  - Universal Oil Products
    - subsurface soil 190 ppm



Summary Regarding Mercury and the PRSA/PRRI

- PRSA/PRRI sediments contain elevated concentrations of Mercury.
- There exist numerous historic and present day sources of Mercury to the environment.
- Many of these sites have historical and/or present day discharge pathways to the PRSA/PRRI.
- Numerous PRPs have been identified, and include historic users/handlers of Mercury and Mercury-containing products.